

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 0 656 409 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
17.04.1996 Bulletin 1996/16

(51) Int Cl.⁶: **C09D 183/04**, C09D 157/06,
C09D 143/04

(43) Date of publication A2:
07.06.1995 Bulletin 1995/23

(21) Application number: **94308788.2**

(22) Date of filing: **29.11.1994**

(84) Designated Contracting States:
DE FR GB

(30) Priority: **30.11.1993 JP 323451/93**

(71) Applicant: **Shin-Etsu Chemical Co., Ltd.**
Chiyoda-ku Tokyo 100 (JP)

(72) Inventors:

- **Takadara, Mitsuhiro**, c/o Silicone-Electronics
Matsuida-machi, Usui-gun, Gunma-ken (JP)
- **Takahashi, Tadashi**, c/o Silicone-Electronics
Matsuida-machi, Usui-gun, Gunma-ken (JP)

(74) Representative: **Stoner, Gerard Patrick et al**
MEWBURN ELLIS
York House
23 Kingsway
London WC2B 6HP (GB)

(54) **Coating compositions**

(57) A coating composition comprising (A) a vinyl copolymer containing a hydroxyl group and a hydrolyzable silyl group, (B) an organopolysiloxane of the formula: $R^1 X_b SiO_{(4-a-b)/2}$ wherein R^1 is a C_{1-10} hydrocarbon group, X is hydroxyl or an alkoxy, alkenoxy, acetoxo or ketoxime group having 1 - 6 carbon atoms, and a and b are positive numbers: $0 < a < 2$, $0 < b < 3$, and $0 < a + b < 4$, (C) a condensation catalyst, and optionally (D) an

organosilane of the formula: $R^1_c SiY_{4-c}$ wherein R^1 is as defined above, Y is an alkoxy, alkenoxy, acetoxo or ketoxime group having 1 - 6 carbon atoms, and c is equal to 0, 1 or 2. The composition can firmly adhere to various inorganic substrates, especially stainless steel and form a coating having improved resistance to weather, water, stains and alkalis.

EP 0 656 409 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 94 30 8788

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	EP-A-0 555 879 (JAPAN SYNTHETIC RUBBER CO LTD) 18 August 1993 * claim 1 * * page 2, line 5 - line 8 * * page 2, line 31 - line 35 * ---	1-8	C09D183/04 C09D157/06 C09D143/04
X	EP-A-0 274 428 (JAPAN SYNTHETIC RUBBER CO LTD) 13 July 1988 * claims 1-13 * ---	1-4	
X	EP-A-0 400 303 (KANEGAFUCHI CHEMICAL IND) 5 December 1990 * claims 1-10 * * page 2, line 1 - line 4 * ---	1-4	
X	DATABASE WPI Derwent Publications Ltd., London, GB; AN 92-109227 & JP-A-04 050 262 (DAIHACHI KAGAKU KOG KK.) , 19 February 1992 * abstract * ---	1	
E	EP-A-0 635 553 (KANEGAFUCHI CHEMICAL IND) 25 January 1995 * claims 1-13 * * page 12, line 31 - line 56 * * page 14, line 15 - line 24 * ---	1	C09D C08L
P,A	WO-A-94 03537 (DOW CHEMICAL CO) 17 February 1994 * claim 1 * * page 3, line 17 - line 31 * -----	1	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 9 February 1996	Examiner Depijper, R
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

EPO FORM 1501 (01/91) (P/CU)